

Book Review: *Eucosma* Hübner of the Contiguous United States and Canada (Lepidoptera: Tortricidae: Eucosmini)

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Donald Wright and Todd Gilligan (2015): *Eucosma* Hübner of the Contiguous United States and Canada (Lepidoptera: Tortricidae: Eucosmini). Wedge Entomological Research Foundation. 256 pp. ISBN 978-0-933003-16-3. Price: €90 or £65.¹

Donald Wright is Professor Emeritus at the University of Cincinnati and Todd Gilligan is Research Scientist at Colorado State University. Both are renowned tortricid experts and they have already co-authored several publications on the taxonomy and phylogeny of the tortricid subfamily Olethreutinae, with special reference to the tribe Eucosmini and more concretely of its type genus *Eucosma* Hübner.



Figure 1. The cover of the book.

The genus *Eucosma*, with more than 230 species, is one of the most species-rich genera of tortricids. Mostly Holarctic in distribution it is especially diverse in the Nearctic. It has been considered as one of the most taxonomically recalcitrant genera, full of difficulties and misidentifications. Most North American species of *Eucosma* have been historically placed in the genus *Phaneta* and the limits between these two genera and *Pelochrista* have remained obscure. The recent research by these same authors on this extremely difficult taxonomic area has been absolutely critical and the present classification of the group can only be understood through their contribution. In the words of the authors themselves, “This volume is, in part, a culmination of that study”. No comprehensive treatment of the North American *Eucosma* had been attempted since Heinrich’s (1923) monograph on the “Eucosminae” and so this publication comes to fill an important gap in the lepidopterological literature (Fig. 1).

¹ Published by the Wedge Entomological Research Foundation (New Mexico, USA), the book is distributed in Europe through Antiquariat Goecke & Evers (Germany) as well as Pemberley Natural History Books (UK).



Figure 2. One of the adult habitus plates from the book.

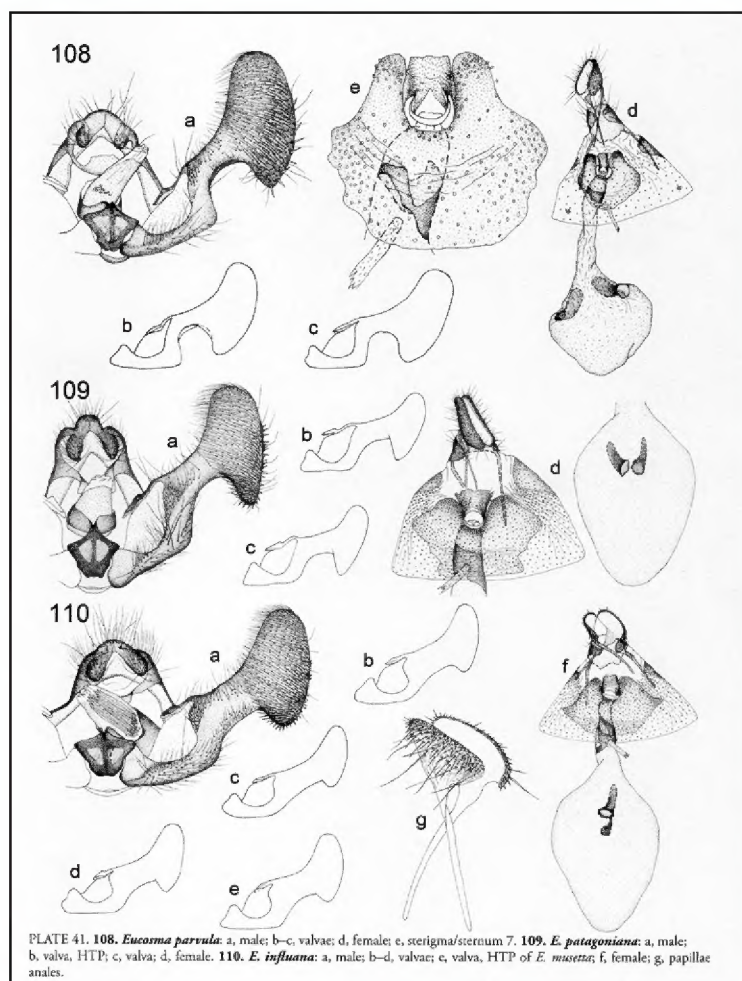


Figure 3. One of the genitalia plates from the book.

Wright and Gilligan concentrate their knowledge of North American *Eucosma* in a monograph of 256 pages, 115 of them beautifully illustrated. The layout of the book is impeccable. An introduction to the genus provides a useful historical background. Those interested in describing or interpreting the morphology of Eucosmini will find especially useful the methodological section that includes an account of the morphology with an interesting character coding. The 133 species – including nine new species – studied are distributed into 18 groups plus a miscellaneous group of non-assigned species. Every group is briefly introduced. Each species is then examined in detail including a list of synonyms, records and misidentifications, type deposition, diagnostic comments, and distributional and biological data when available. Habitus images of the adults (right side) are illustrated in 29 full colour plates (Fig. 2). The head is also photographed when distinctive characters are relevant. Male and female genitalia drawings are compiled in 49 plates where Wright feels free to demonstrate his outstanding qualities as illustrator (Fig. 3). The sterigma-sternum 7-ductus bursae complex is figured separately at a useful scale, allowing accurate details of the female genitalia. Unlike other faunal works, the variability receives special attention and the male genitalia of different specimens are illustrated when necessary, completing a total of 450 adult images and 629 genitalia drawings. The usual appendices (food plants, taxon names...) include a novel and interesting comparative biometric table.

The book is essential for those interested in Tortricidae. But even if focused on the North American fauna and a single genus, anyone interested in Lepidoptera will find this publication attractive, not only for the information provided, but also as a benchmark to which other authors can aspire.